

TAXONOMIC CHANGES IN THE MEMBRACIDAE (HOMOPTERA)

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Abstract.—The following changes are made to align membracid classification with current taxonomic concepts and rules of nomenclature: *Disconotus* Strümpel is referred from Leptocentrini to Microcentrini and *Iria* Stål from Nessorhinini to Heteronotini, new generic placements; *Anchistrotus* Buckton is reinstated from synonymy under *Heliodore*; *Heliodore* Stål is replaced in synonymy under *Omolon* Walker; *Anchonomonoides*, new genus, is described (by reference); and *Ananthasubramanium*, *Evansiana*, *Todea*, and *Colisicostata* are proposed as new replacement names for *Paranotus* Ananthasubramanian, *Kurandella* Evans, *Richteria* Tode, and *Walkeria* Tode, respectively. New species combinations are published for the generic changes listed above, for the type species of *Chel-yoidea* Buckton, and for two species of *Triophus* Boulard described originally under an unavailable generic name.

Key Words: Insecta, Homoptera, Membracoidea, Membracidae, treehopper

The following changes are meant to correct membracid classification with respect to some taxa that were misidentified previously, some names that are invalid as junior homonyms or unavailable for lack of type species, and basic rules of nomenclature (International Commission on Zoological Nomenclature, 1985 [ICZN]). The changes involve the treehopper subfamilies Centrotinae, Heteronotinae, Nessorhini-nae, Smiliinae, and Stegaspidinae. Metcalf and Wade (1963, 1965) provided literature references for the original descriptions of the membracid genera and species described before 1956.

Subfamily Centrotinae

Incertae Sedis

Evansiana, NEW NAME

Evansiana, *nomen novum* for *Kurandella* Evans, 1966: 298, preoccupied by *Kurandella* Fennah, 1950. Type species: *Acanthuchus iasis* Kirkaldy

Evansiana iasis (Kirkaldy), New Combination

Acanthuchus iasis Kirkaldy, 1907: 90

A feminine latinization of "Evans" is proposed to replace his monobasic genus *Kurandella*, which is a junior homonym of an achilid genus (Fulgoroidea). Evans (1966) intentionally left *Kurandella* unplaced within Centrotinae.

Tribe Centrotini

Anchonomonoides, NEW GENUS

Anchonomones Capener, 1972, *nomen nudum* (ICZN Art. 13b)

Anchonomonoides, New Genus. Type species: *Anchonomones expansus* Capener
Anchonomonoides expansus (Capener), New Combination

Anchonomones expansus Capener, 1972: 43

Anchonomonoides modestus (Capener), New Combination

Anchonomones modestus Capener, 1972: 43

Capener (1972) neglected to designate, in the sense of any provision of Article 68 (ICZN), a type species for the genus *Anchonomones*. The indication "gen. et sp. n." in his figure caption of *A. expansus* is not sufficient for type fixation in works published after 1930 [ICZN Art. 68b(i)]. Consequently, *Anchonomones* is unavailable and a new genus is needed for the two originally included species, whose names are still available [ICZN Art. 11h(iii)(1)]. The new genus *Anchonomonoides* is proposed, with features as described for *Anchonomones* Capener, 1972:42, with type species *Anchonomonoides expansus* Capener, 1972, and also with the species *Anchonomones modestus* Capener, 1972. This establishment conforms to ICZN Articles 13a(ii) and 13b.

Tribe Leptocentrini

Ananthasubramanium, NEW NAME

Ananthasubramanium, **nomen novum** for *Paranotus* *Ananthasubramanian*, 1980: 119, preoccupied by *Paranotus* Karsch, 1890. Type species: *Paranotus tomentosus* *Ananthasubramanian*

Ananthasubramanium tomentosus (*Ananthasubramanian*), **New Combination**
Paranotus tomentosus *Ananthasubramanian*, 1980: 120

A masculine latinization of "Ananthasubramanian" is proposed to replace his monobasic genus *Paranotus*, which is a junior homonym of a flatid genus (*Fulgoroidea*).

Trioxiphus Boulard, 1979

Trioxyphus Boulard, 1977, **nomen nudum** (ICZN Art. 13b)

Trioxiphus Boulard, 1979 [dated 1978].
Type species by original designation:
Trioxiphus giganteus Boulard, 1979

Trioxiphus mabokiensis (Boulard), **New Combination**

Trioxyphus mabokiensis Boulard, 1977: 40
Trioxiphus reductispinus (Boulard), **New Combination**

Trioxyphus reductispinus Boulard, 1977: 41

A misordered sequence of publication affects the valid names of two species. Boulard (1977) described *Trioxyphus mabokiensis* and *T. reductispinus*, but the generic name *Trioxyphus* is unavailable for lack of a type species (ICZN Arts. 13b and 68). The generic description, including type species designation, appeared later (Boulard 1979 [dated 1978]), but with the spelling *Trioxiphus*. Because the names of the first two species are still available [ICZN Art. 11h(iii)(1)], they can be referred from *Trioxiphus* Boulard, 1977, **nomen nudum**, to the genus *Trioxiphus* Boulard, 1979.

Subfamily Heteronotinae

Tribe Heteronotini

Anchistrotus Buckton, 1902, **REVISED STATUS**

Boulard (1983) implicitly placed *Heliodore* and *Anchistrotus* in synonymy by incorrectly considering their type species, *H. laportei* (Germar) (as a synonym of *Anchistrotus maculatus* [Guérin-Méneville]) and *A. obesus* Buckton, to be congeneric. The younger generic name, *Anchistrotus*, was considered valid, but nevertheless thereby became a junior synonym in need of reinstatement. No new combinations result from the earlier synonymy or this reinstatement because no *Anchistrotus* species have since been combined with the name *Heliodore*. The generic synonymy, which was unintentional (Boulard, pers. comm.), is rejected, but the intentional species synonymy between *H. laportei* and *A. maculatus* is accepted (see below, under *Omolon*).

Iria Stål, 1867

Iria Stål, 1867, referred from Nessorhiniinae: Nessorhinini, **New Placement**

Deitz (1975) placed the genus *Iria* in Nessorhinini based on a specimen collected by

C. C. Gowdey in Jamaica that resides in the United States National Museum of Natural History (Washington, D.C.) and which was misidentified by W. D. Funkhouser as the type species, *I. carinata* (Walker). The holotype of *I. carinata* (The Natural History Museum, London, England [BMNH]) belongs to Heteronotini (*sensu* Deitz 1975) because it has a concealed scutellum, simple metathoracic tibiae with three longitudinal rows of cucullate setae, and an exposed forewing with one r-m and one m-cu crossvein and an obliquely truncate clavus. *Iria* may prove to be a synonym of the heteronotine genus *Smiliorachis* Fairmaire. All the species of *Iria* listed by Metcalf and Wade (1965) should remain in that genus until their proper placements are determined. The type locality, Guadeloupe, of *I. lethierryi* Funkhouser (a replacement name for *Darnoides carinata* Lethierry) suggests that it may be allied to the specimen examined by Deitz (1975); both specimens therefore merit further study in the context of the subfamily Nessorhininae.

Omolon Walker, 1862

Heliodore Stål, 1867, **Reinstated Synonymy**
Omolon carinatus (Guérin-Méneville), **New Combination**

Combophora carinata Guérin-Méneville, 1844: 366

Omolon seabrai (Sakakibara), **New Combination**

Heliodore seabrai Sakakibara, 1968: 309
Omolon incongruus (Walker), **Reinstated Combination**

Combophora incongrua Walker, 1858: 340

Omolon laporti (Germar), **Reinstated Combination**

Combophora laporti Germar, 1835: 253
Combophora maculata Guérin-Méneville, 1844: 366; Boulard (1983) [as *Anchistrotus maculatus* (Guérin-Méneville)]

Deitz (1975) suspected that *Omolon* and *Heliodore* were congeneric. Butler's (1878)

synonymy of the two had been rejected by Goding (1926: 310) and Funkhouser (1951: 99) because they believed that *Omolon* had the pronotum unicarinate rather than tricarinate as in *H. laporti*, the type species of *Heliodore*. The pronotum of *O. tridens* Walker (holotype BMNH), which is the type species of *Omolon*, is also anteriorly tricarinate, corroborating Butler's synonymy. The other species formerly in *Heliodore*, namely *O. incongrua* (lectotype BMNH) and *O. seabrai*, are also tricarinate.

Subfamily Smiliinae

Tribe Tragopini

Chelyoidea Buckton, 1902

Chelyoidea aenea (Perty), **New Combination**

Darnis aenea Perty, 1833: 179

Tragopa nitida Germar, 1835: 309

Chelyoidea nitida Buckton, 1902: 156, preoccupied by *Tragopa nitida* Germar

Tragopa bucktoni Funkhouser, 1927: 172, *nomen novum* for *C. nitida* Buckton

The valid name for the type species of *Chelyoidea* Buckton needs clarification. Tode (1966) reinstated *Chelyoidea* and listed its type species, *C. nitida* Buckton, 1902, as a valid name with two junior synonyms: *Tragopa nitida* Germar, 1835, and *T. aenea* (Perty, 1833). In 1966 the two *nitida* names, already homonyms, thereby became synonyms. The secondary junior homonym *C. nitida* Buckton is permanently invalid (ICZN Art. 59b) and its replacement name, *T. bucktoni* Funkhouser, 1927, competes in priority with its own date (ICZN Art. 60c). *Darnis aenea* Perty, 1833, has priority over the two other names competing in synonymy and thus *Chelyoidea aenea* (Perty) is the valid name for the type species, *C. nitida* Buckton.

Colisicostata, **NEW NAME**

Colisicostata, *nomen novum* for *Walkeria* Tode, 1966: 312, preoccupied by

- Walkeria* Fleming, 1823. Type species:
Tragopa scutellaris Buckton
Colisicostata albata (Tode), **New Combination**
Walkeria albata Tode, 1966: 314
Colisicostata scutellaris (Buckton), **New Combination**
Tragopa scutellaris Buckton, 1902: 156

Todea, NEW NAME

- Todea*, **nomen novum** for *Richteria* Tode, 1966: 305, preoccupied by *Richteria* Girault, 1920. Type species: *Richteria incerta* Tode
Todea cimicoides (Coquebert), **New Combination**
Membracis cimicoides Coquebert, 1801: 77
Todea incerta (Tode), **New Combination**
Richteria incerta Tode, 1966: 306
Todea jubata (Tode), **New Combination**
Richteria jubata Tode, 1966: 308
Todea peruviana (Funkhouser), **New Combination**
Tragopa peruviana Funkhouser, 1927: 177
Todea semicirculosa (Tode), **New Combination**
Richteria semicirculosa Tode, 1966: 308

Replacement names are proposed for Tode's (1966) genera *Walkeria* and *Richteria*, which are junior homonyms of a bryozoan genus and a mymarid wasp genus, respectively. The resulting new combinations are listed. The replacement name for *Richteria* is a feminine latinization of "Tode," and the new name for *Walkeria* is derived from the Latin "colis," for penis, and "costata," for rib-like; the central shaft and diagnostic lateral projections of the aedeagus (Tode 1966, Figs. 53, 55) recall a vertebrate rib cage.

Subfamily Stegaspidinae

Tribe Microcentrini

Disconotus Strümpel, 1988

- Disconotus* Strümpel, 1988, referred from Centrotinae: Leptocentrini, **New Placement**

Strümpel and Strümpel (1988) placed the monotypic genus *Disconotus* in the tribe Leptocentrini (subfamily Centrotinae), following Metcalf and Wade's (1965) classification of the related genus *Dontonodus* Funkhouser. According to the current classification (Deitz 1975), both genera belong to the tribe Microcentrini (subfamily Stegaspidinae). The holotype female (Instituto de Zoología Agrícola, Maracay, Universidad Central de Venezuela) of *Disconotus magnificus* Strümpel, 1988, has a metathoracic femur with a short distal band of cucullate setae dorsally (M. Gaiani, pers. comm.) and a forewing with a uniformly tapered and acute clavus and two m-cu crossveins. The paratype male (Zoologisches Institut und Zoologisches Museum, Universität von Hamburg, Hamburg, Germany) agrees in all features and has a free lateral plate bearing a hook as in *Microcentrus* Stål (Fig. 41b of Deitz 1975). While none of these features occurs in Leptocentrini (Deitz 1985), they are sufficient to distinguish Microcentrini from all other Membracidae.

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